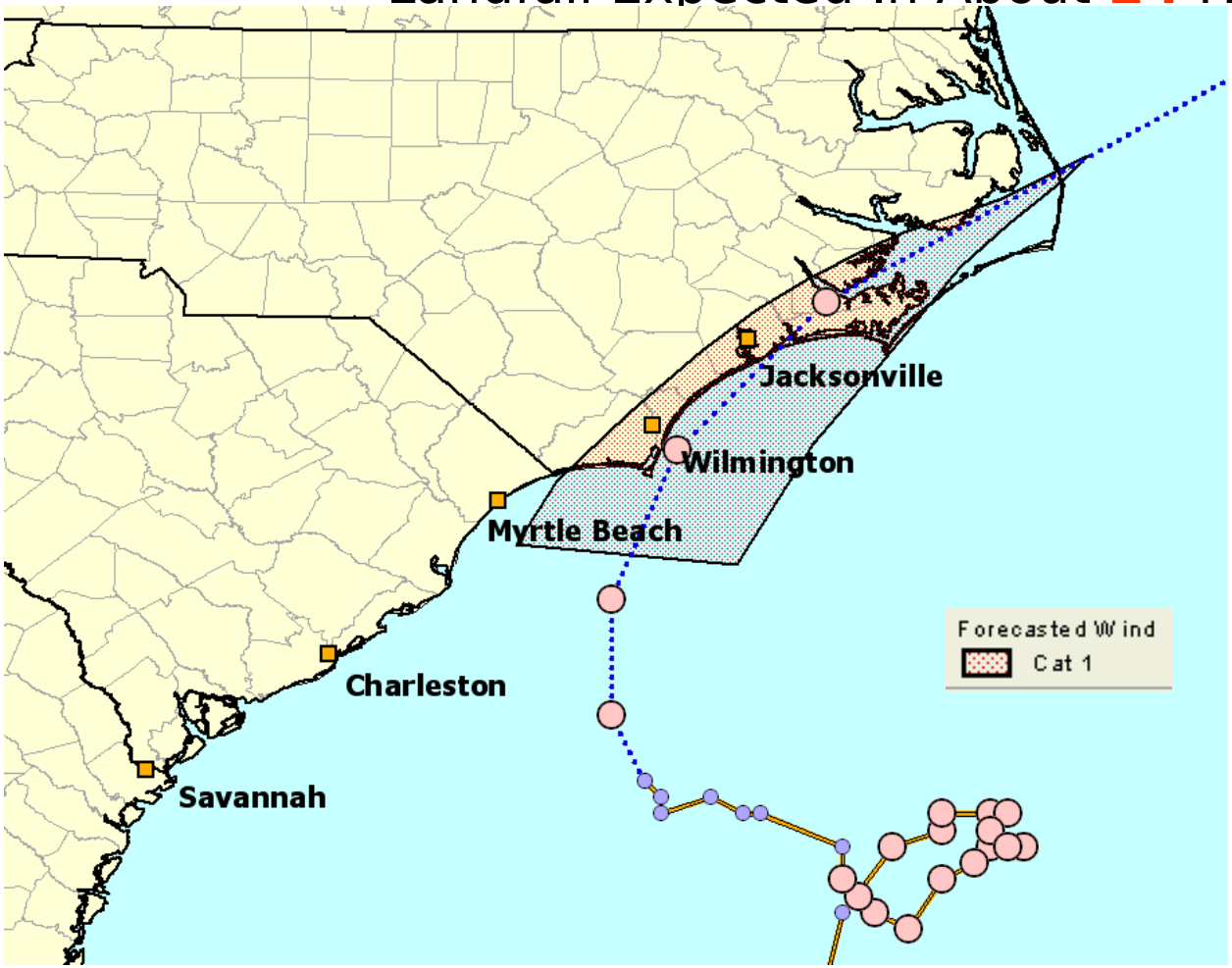
Hurricane Ophelia Wind Distribution

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Wind Distribution

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Wind Fields

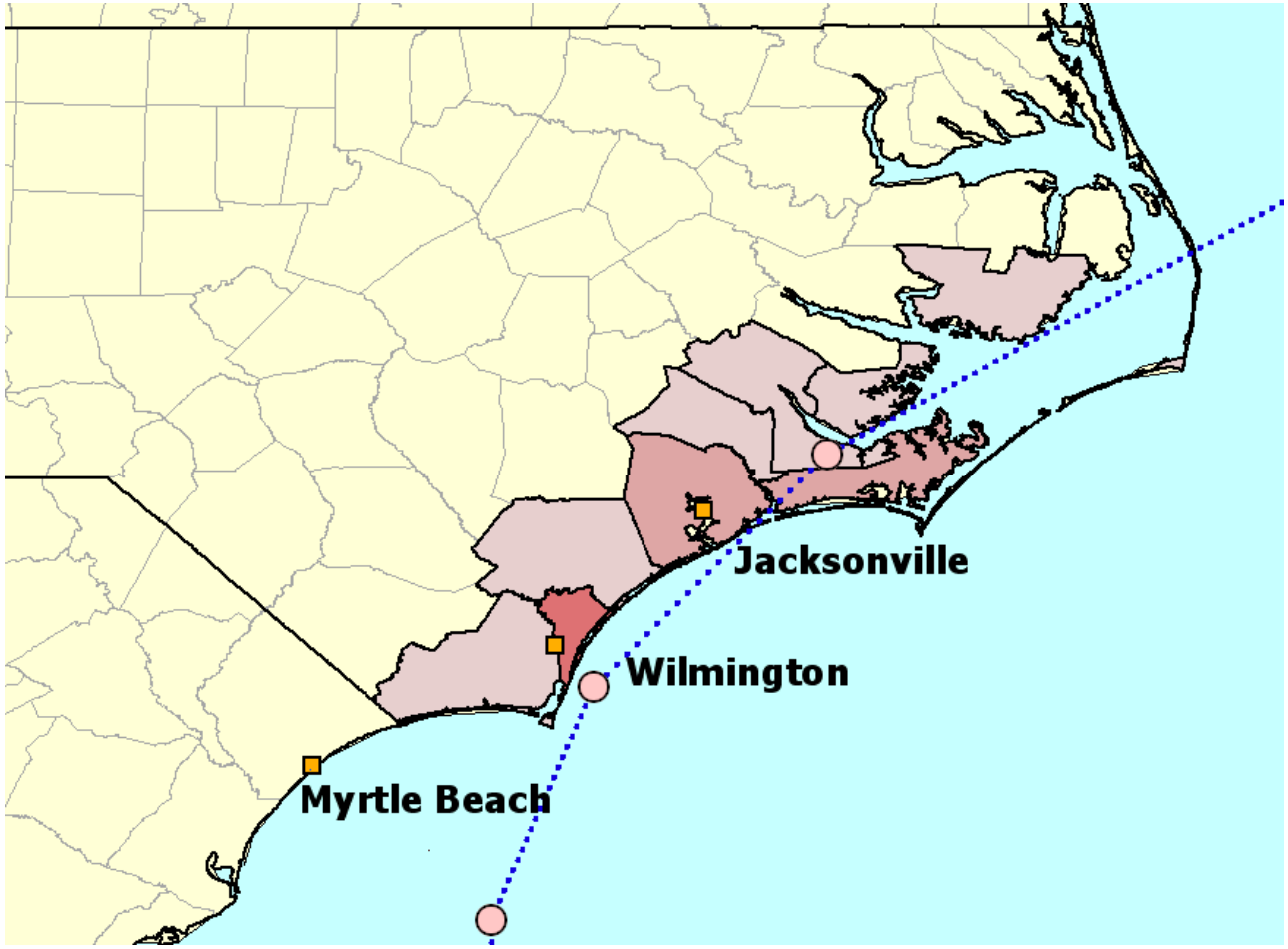
Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Debris Model

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Debris Model Results

North Carolina – 754,000 yd^3

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Debris Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Debris Model

Landfall Expected In About **24** Hours

For Official Use Only!

State	County	Cubic Yards
North Carolina		
	Brunswick	77,000
	Carteret	109,000
	Craven	48,000
	Dare	1,000
	Hyde	1,000
	Jones	3,000
	New Hanover	325,000
	Onslow	153,000
	Pamlico	15,000
	Pender	22,000
TOTAL		754,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Debris Model

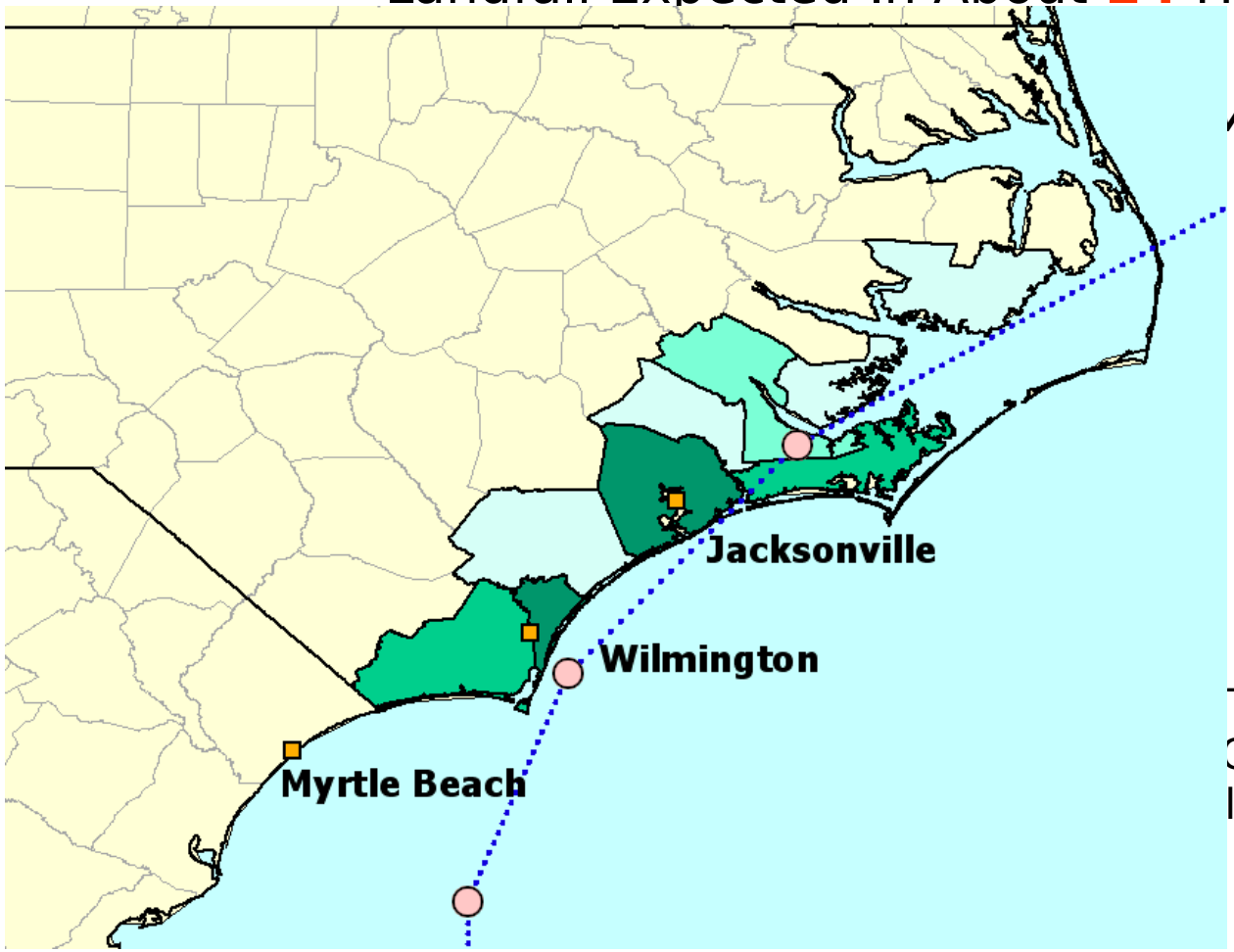
Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Ice Model

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Ice Model Results

North Carolina –
6 Truckloads Day One
13 Truckloads Day Two
26 Truckloads Day Three

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per day per person) and Ice SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers	**Hurricane Ophelia Ice Model**
Generated By: Terry Siemsen, LRL 0700 EDT 09/13/2005	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 15

Hurricane Ophelia Ice Model

Landfall Expected In About **24** Hours

For Official Use Only!

Ice/Water Commodities - Trucks/Distribution Lanes Ramp-up
(Number of Trucks Each Commodity and Lanes Anticipated - end of each day)

	Day One (25%)*	Day Two (50%)*	Day Three (100%)*	Commodity Trucks Day 1-3 Total	Within Hurricane Force Winds Population	Households
Jacksoinville Landfall Track						
North Carolina	6	13	26	45	426,000	164,000
Total	**6**	**13**	**26**	**45**	**426,000**	**164,000**

Key assumption is that establishment of distribution lanes will be the limiting factor.

* Assumption is that States/locals (FL is the * exception) will have the capability to establish about 25% of needed distribution lanes in the first 24 hours post-landfall, about 50% of needed distribution lanes in the first 48 hours after landfall, and all needed lanes by 72 hours post landfall. Florida, due to past experience, estimates they can establish up to 50 distribution lanes per day.

Ophelia CAT1 24 hour assumption - 30% of the population within hurricane force winds will require water and/or ice

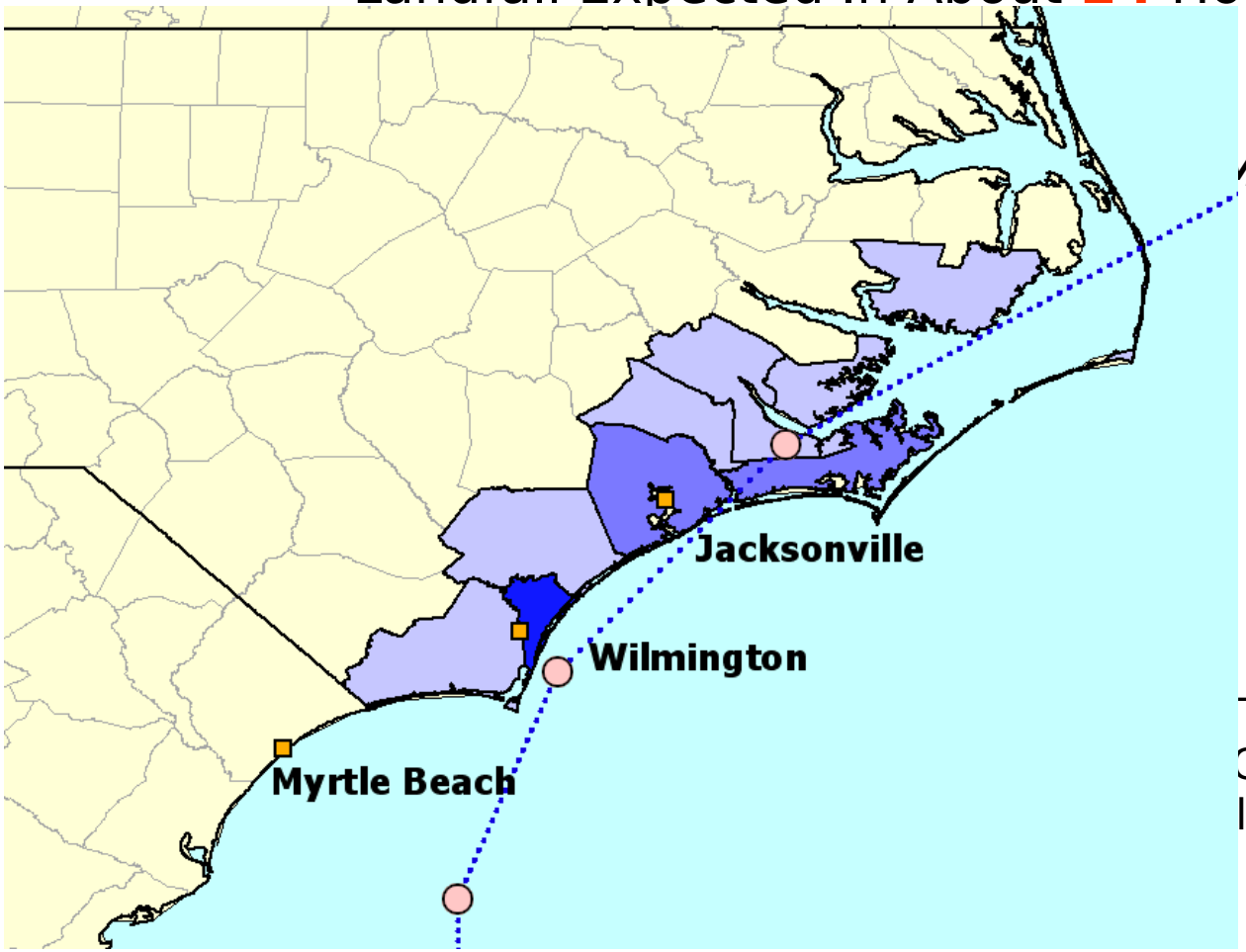
The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per person) and Ice SME input and represents a first day daily need. The assumption in this NCenario is that 30% of the resident population affected by Ophelia will have power outage in this area will cause a need for ice.

Details about this model may be obtained at
https://englink.usace.army.mil
or contact ENGLink at 1-877-936-4546

Hurricane Ophelia Water Model

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Water Model Results

North Carolina –
6 Truckloads Day One
13 Truckloads Day Two
26 Truckloads Day Three

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person per day) and Water SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Water Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Water Model

Landfall Expected In About **24** Hours

For Official Use Only!

Ice/Water Commodities - Trucks/Distribution Lanes Ramp-up
(Number of Trucks Each Commodity and Lanes Anticipated - end of each day)

	Day One (25%)*	Day Two (50%)*	Day Three (100%)*	Commodity Trucks Day 1-3 Total	Within Hurricane Force Winds Population	Households
Jacksoinville Landfall Track						
North Carolina	6	13	26	45	426,000	164,000
Total	**6**	**13**	**26**	**45**	**426,000**	**164,000**

Key assumption is that establishment of distribution lanes will be the limiting factor.

* Assumption is that States/locals (FL is the * exception) will have the capability to establish about 25% of needed distribution lanes in the first 24 hours post-landfall, about 50% of needed distribution lanes in the first 48 hours after landfall, and all needed lanes by 72 hours post landfall. Florida, due to past experience, estimates they can establish up to 50 distribution lanes per day.

Ophelia CAT1 24 hour assumption - 30% of the population within hurricane force winds will require water and/or ice

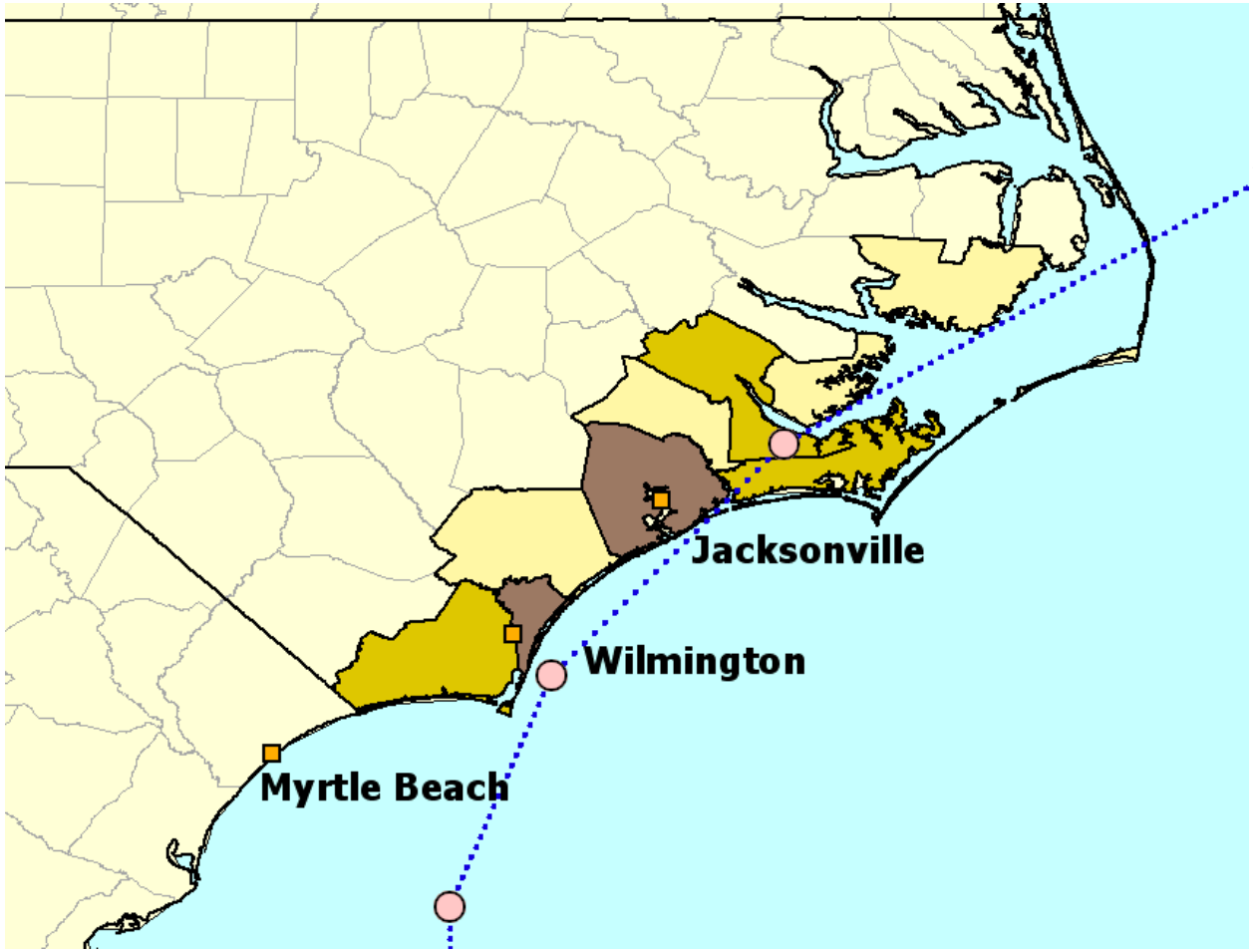
The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person) and Water SME input and represents a first day daily need. The assumption in this NCenario is that 30% of the resident population affected by Ophelia will have power outage in this area will cause a need for water.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

Hurricane Ophelia Population Model

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Population Model Results

North Carolina – 426,000 persons

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The number of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Population Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Population Model

Landfall Expected In About **24** Hours

For Official Use Only!

State	County	Population per County
North Carolina		
	Brunswick	42,000
	Carteret	59,000
	Craven	35,000
	Dare	1,000
	Hyde	1,000
	Jones	2,000
	New Hanover	159,000
	Onslow	108,000
	Pamlico	8,000
	Pender	12,000
TOTAL		426,000

The number of persons estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Population Model

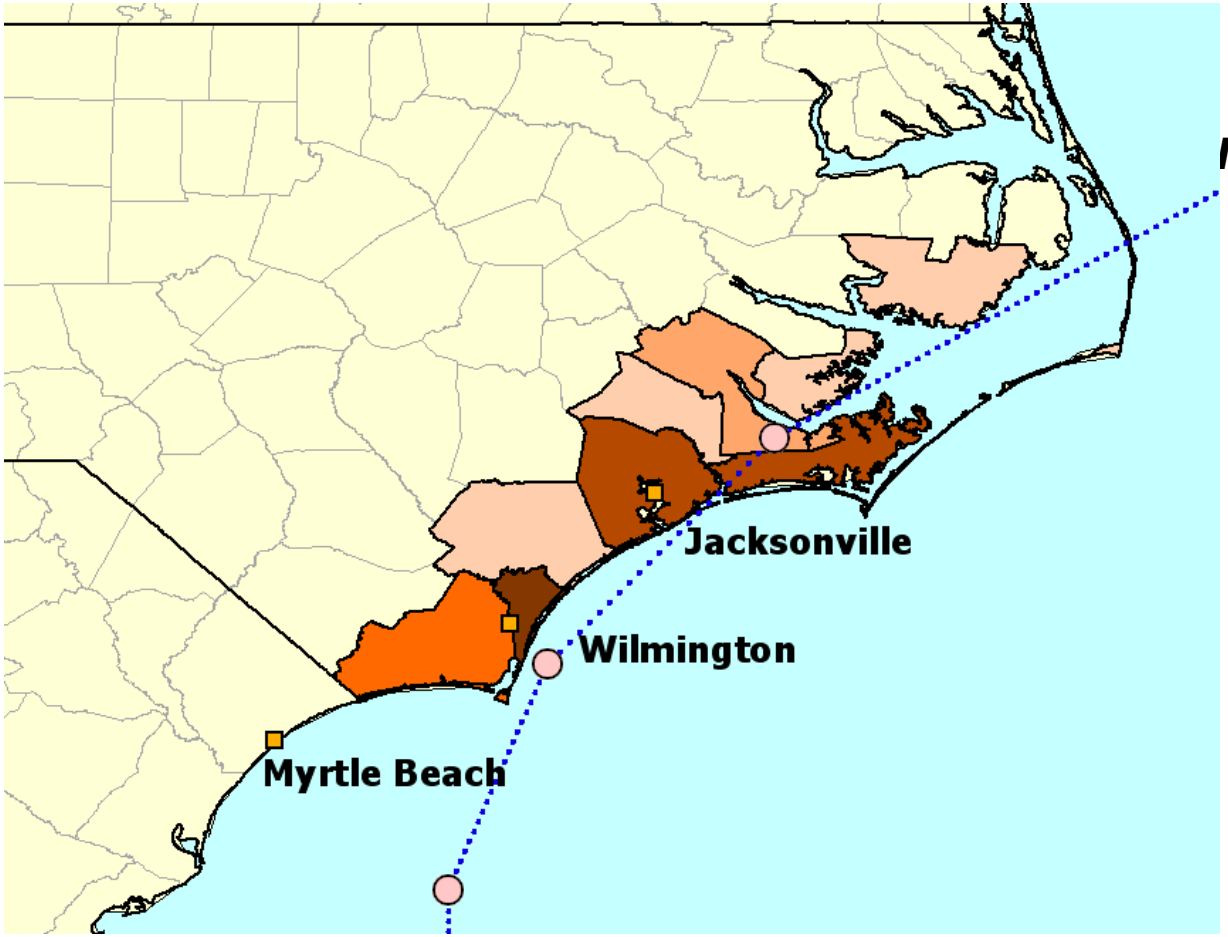
Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Households Model

Landfall Expected In About **24** Hours

For Official Use Only!



Most Probable Landfall Households Model Results

North Carolina – 164,000 households

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The number of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Households Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Households Model

Landfall Expected In About **24** Hours

For Official Use Only!

STATE	COUNTY	HOUSEHOLDS
North Carolina		
	Brunswick	18,000
	Carteret	25,000
	Craven	11,000
	Dare	1,000
	Hyde	1,000
	Jones	1,000
	New Hanover	68,000
	Onslow	32,000
	Pamlico	4,000
	Pender	5,000
TOTAL		164,000

The number of households estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil
or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

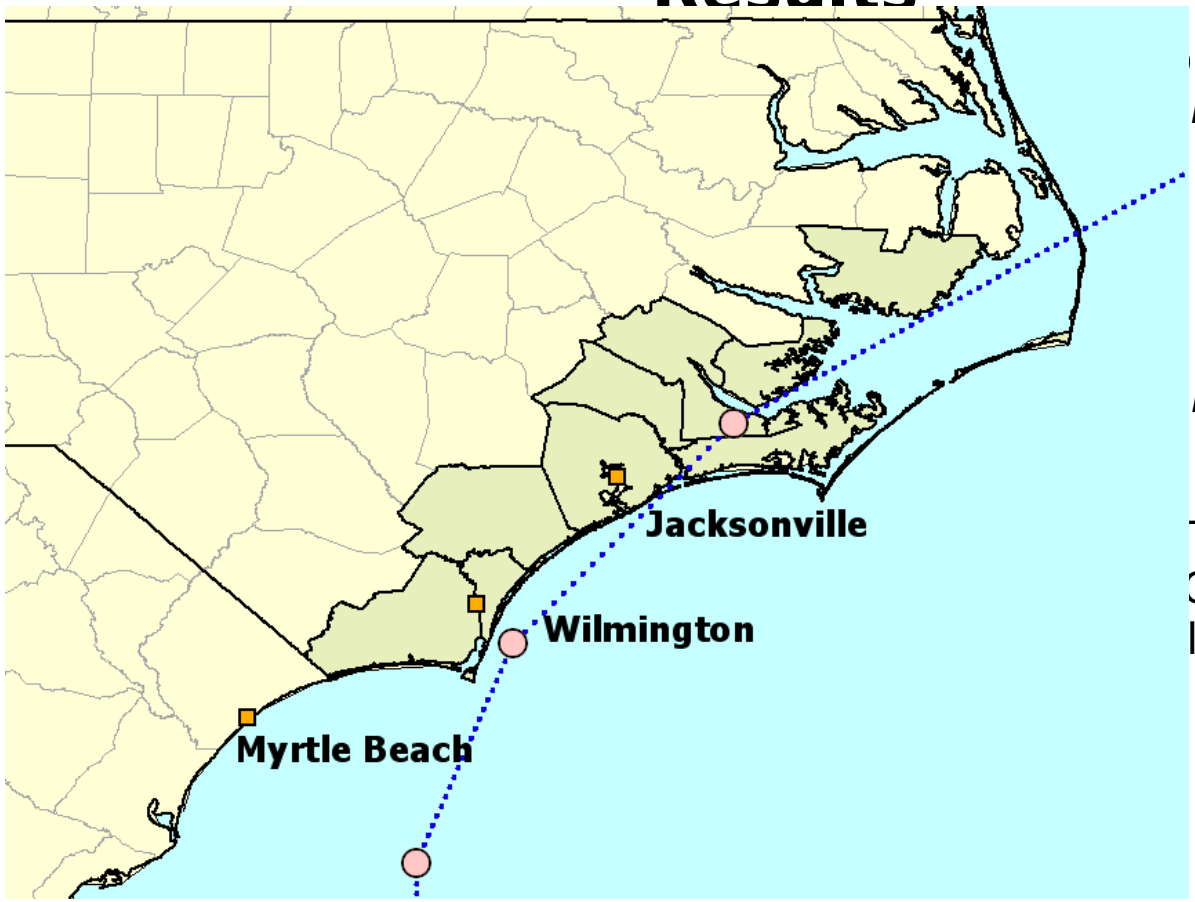
Hurricane Ophelia Households Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Temporary Roofing Model Results

For Official Use Only!



urs

Most Probable Landfall Temporary Roofing Model Results

North Carolina – 3,600

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The amount of temporary roofing that may be required is based on 3% of housing units damaged in CAT 1 wind area. This only indicates possible need – not necessarily a mission to repair roofs.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Roofing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Temporary Roofing Model Results

Landfall Expected In About **24** Hours

For Official Use Only!

STATE	COUNTY	HOUSEUNITS
North Carolina		
	Brunswick	400
	Carteret	500
	Craven	200
	Dare	100
	Hyde	100
	Jones	100
	New Hanover	1,400
	Onslow	600
	Pamlico	100
	Pender	100
TOTAL		3,600

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary roofing that may be required is based on 3% of housing units damaged in CAT 1 wind area. This only indicates possible need – not necessarily a mission to repair roofs.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Roofing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Temporary Housing Model Results

Landfall Expected In About **24** Hours

For Official Use Only!

Most Probable Landfall Temporary Housing Model Results

North Carolina – 000

Model results per county on following page

There is no expected temporary housing need

This model is based on a Category 1 storm making landfall in near proximity to Jacksonville, NC.

Information provided on this page displays a Category 1 storm making landfall near Jacksonville, NC. These projections are based on information from the NHC ***(0500 EDT 09/13/2005)*** forecast. The amount of temporary housing that may be required is based on no housing need in CAT 1 wind area.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Housing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Ophelia Temporary Housing Model Results

Landfall Expected In About **24** Hours

For Official Use Only!

There is no expected temporary housing need

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary housing that may be required is based on no housing need in CAT 1 wind areas.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Ophelia Housing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 09/13/2005

Sources:
HURREVAC
LRL-DEBRIS